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Human Resource Practices in Start-up Companies

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Abstract

Human Resource Practices in Start-up Companies

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Entrepreneurship is part of the American dream; about 10% of the US work force owns a small business. In a stable economy owners that are focused on product and market development see continuous growth and expansion; however in turbulent economic times businesses are forced to focus on their competitive advantages. For small enterprises, the most valuable asset is the human capital of the firm; nonetheless many start-up founders tend to overlook the importance of administrative issues like human resource management (HRM). This report shall discuss how founders initially approach the employment relations in the start-up, and what effects their choices have in the long run on the business performance.

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Competitive Advantage of an Engineering Start-Up

Entrepreneurship is part of an American dream, “in spite of numerous risks, the appeal of being self-employed lures many workers in the United States into attempts at starting new businesses” (Kim and Aldrich 5). Research indicates that “10% of the U.S. labor force is self-employed full time at a given time, and over their lifetimes, about 40% of U.S. adults will experience a spell of self-employment” (Kim and Aldrich 5).

In 2008 I had an opportunity to join a small consulting firm of four engineers that had been in business together for eight years. As the construction industry hit a slump in the summer of 2009, the founder of the company was struggling to keep the business afloat. In slow economic times some start-up companies thrive and some end up closing their doors; as my company folded I questioned what makes certain start-ups prone to dramatic changes in the economy. In the engineering industry where both products and professional services are tendered, small enterprises compete with established corporations. Although start-ups cannot match the sales volume of their large competitors, they are still able to capture a certain market share. Small businesses that are successful through turbulent economic times continuously improve their competitive edge, whatever that may be. An obvious question then becomes: what competitive advantage should a technological start-up develop? In search of an answer I have discovered that “people are the ultimate source of competitive advantage” for any start-up in the high-tech industry (Baron / Hannan 29). Therefore, proper management of the human capital (HC) is critical to small and medium enterprises (SME) in general, and start-ups in particular.

When a young enterprise enters the birth stage of its business lifecycle, “the emphasis is on creating both product and a market,” and founders’ priorities lie in manufacturing, marketing, and financial planning (Greiner 60). Basically, in the early stages of business development the founder is primarily focused on ‘doing’ activities rather than administrative tasks such as human resource management (Tocher and Rutherford 459). As start-ups complete the initial product development, the focus shifts to manufacturing and sales. Recruitment of talent and retention of the key employees does not concern the founder unless HRM issues become acute. For example, a founder that is consumed with business tasks may not be aware that certain staff members do not work well in teams until one of that employee decides to leave the firm. This issue could have been easily handled through coordination of work that would allow the employee work individually. In such instance it may be too late to manage the problem and the start-up may lose one of the talented team members. Research indicates that management of the intangible assets is the one of the most important tasks in the start-up because it is the employees that make the enterprise successful.

It is argued that advantages developed through HRM such as a positive organizational culture and a strong firm knowledge base, can help create sustainable competitive advantages, because such intangible assets are valuable, rare and difficult to imitate. Furthermore developing competitive advantages through HRM are likely more important to SME because SME do not likely possess the tangible resources bases to compete with larger and more established firms (Tocher and Rutherford 456).

While research suggests that talented employees are the most valuable asset of an emerging company, developing HRM is seldom considered as part of a founder’s business plan. Lack of management and implementation of formal HRM practices may

have been the root problem of my previous company, and that led me to study previously conducted research in the field of HRM and entrepreneurship.

In this report I take a closer look at whether HRM practices are at all beneficial in emerging small enterprises, and how HRM may differ in start-ups compared to more established, larger organizations. Then, I examine five *blueprints* of employment relations and the effects of the blueprint selection on the HRM practices employed in start-up companies. I also examine how blueprint selection influences business growth and how changes in the blueprint impact an organization's financial bottom line. Finally I explain how formal communication and implementation of HRM practices impact the business success.

HR Management in Entrepreneurship

Conceptually HR practices do not depend on the size or age of the firm. Small enterprises typically use the same HRM practices as the larger and long established competitors. Specifically, some emerging SME adopt similar HRM techniques “in a variety of areas such as training, compensation, recruiting and selection” (Tocher and Rutherford 457). When it comes to management of human capital the main difference between start-ups and large and more established corporations lies in the resources the companies have available. Typically, large firms have established HR departments that deal with issues related to management of human resources. Founders of the small enterprises, on the other hand, often find themselves performing HRM tasks in addition to their executive functions.

Human resource practices vary across organizations, but these practices generally fall under one of the four approaches. As discussed in Boudreau's book *Beyond HR*, these four approaches are compliance, fads and fashions, equality, and strategic planning. While Boudreau's research was mainly focused on large corporations, traces of these practices may also be found in small businesses.

Figure 1. Common Human Resource Management Approaches

Compliance	Set of rules, regulations, or standards that must be met
Fads and Fashions	HR innovations follow popular practices rather than rational strategy
Equality	All employees are equally important
Strategic Planning	Link organizational culture to company strategy and business growth

Compliance, fads, and equality are most common, but as more research linking HRM practices to financial success of the firm has become available, the strategic planning approach has become more widely accepted. Until recently HR professionals believed that only 10% of their daily activities were involved with business strategy, but research conducted by Boudreau and his colleagues shows that in fact about 23% of the tasks performed by HR professionals contribute to business development (Bourdeau 7). It can be concluded from Bourdeau's research, that no matter what initial HRM approach a company takes, almost a quarter of HRM activities have a direct influence on the organizational growth.

Like Bourdeau's study, the majority of the currently available research concentrates on HRM practices in "bigger, more established organizations that due to

their size are likely to have human resource departments” (Keating and Olivares 175).

Based on Bourdeau’s findings it is fair to assume that implementation of HRM practices in large corporations correlates to the financial bottom line, but there is not much research about the effects of implementing HRM practices on the success of start-ups.

“Young entrepreneurs are actively seeking new information about these (HRM) topics,” however “HRM and entrepreneurial research have rarely been combined in the literature and there is no clear literature in the area of HRM entrepreneurial firms” (Keating and Olivares 175). Although it is true that small firms have fewer human resource issues, lack of readily available tools and resources to identify and address these administrative issues can result in slow business growth or complete failure (Tocher and Rutherford 470).

A popular framework linking HRM practices and emerging organizations was defined by Larry E. Greiner. Greiner’s framework defines the phases of development in an organization from birth to death. As a company evolves from phase to phase, founders face internal organizational crises. The growth and success of the business are directly dependent on the resolution of each crisis period (Greiner 56). Organizations that are “unable to abandon past practices and effect major organizational changes are likely to either fold or to level off in their growth rates” (Greiner 58).

According to Greiner, every emerging company goes through a “creative evolution” stage. In this phase the decisions are typically informal and closely linked to the individual founder (Greiner 60). At this time, “the founders of the company are usually technically or entrepreneurially oriented, and they generally disdain management activities; their physical and mental energies are absorbed entirely by making and selling

a new product” (Greiner 60). Tocher and Rutherford confirm Greiner’s claims; their research indicates that at the time of growth through creativity founder of emerging SME “are not likely to focus on administrative issues such as HRM, unless they perceive such issues to be an acute concern of the firm” (456).

As start-ups expand and increase the number of professionals on staff, the problems encountered by management become more complex and require a “serious upheaval of management practices. Traditional management practices that were appropriate for a smaller size and earlier time no longer work and are brought under scrutiny” (Greiner 56).

.The need for a formal organizational structure and HRM practices arises as the administrative issues become more apparent. Greiner named this period the “crisis of leadership” (56). About fifty per cent of companies fail at this stage due to the founder’s unwillingness to let go of sole control and create a management team that possesses “necessary knowledge and skill to introduce new business techniques to allow the organization to grow” (Keating and Olivares 177).

Whether or not founders realize it, even in the early days of business development they deal with HRM issues quite frequently. Start-up founders recruit employees to help them achieve their business goals. Although company wide meetings to update staff on financial performance are not usually an official business practice, ad hoc meetings are often held to evaluate business status and strategy. Sometimes founders offer stock ownership to their employees as a reward for excellent performance. All these activities are in fact HRM techniques that are rarely addressed in formal policies. The consequences of a founder’s initial choices regarding HRM were closely examined in a Stanford Graduate

School of Business research study, which was conducted on high-tech start-up companies in Silicon Valley.

Employment Relations Blueprint

The Stanford Project on Emerging Companies (SPEC) is by far the most comprehensive empirical research available about HRM in start-up firms. SPEC has tracked a large sample of high-tech start-ups in Silicon Valley with a purpose of investigating “how the founders approached key organizational and HR challenges in the early days of building their firms and to learn whether these activities have had enduring effects on the companies” (Baron and Hannan 9).

Researchers collected information on over 200 companies of varying size and age. An average SPEC company was approximately five years old and employed roughly 75 people when the study started (Baron and Hannan 9). The study was conducted over an eight year period and captured data from both an economic boom as well as a rapid decline in the U.S. economy. SPEC researchers gained their information through interviews with the founders, chief executives, and HR directors (Baron and Hannan 9). Qualitative data was supplemented by quantitative information on strategy, HR practices, and financing, which was obtained from public and private sources (Baron and Hannan 9). The SPEC study was able to “construct a comprehensive record of the evolution” of these California high-tech start-ups (Baron and Hannan 9).

The concept of launching a new company seems simple enough: one has an idea for a product or a service and the idea leads to the creation of a new organization. Although a business idea is the essential part of the new business, often its realization

requires additional human resources. Product development, manufacturing, and marketing are tasks that are carried out by people other than the founder. While it may seem that most start-ups look pretty much the same, the data suggests that owners usually have a vision of how they should approach the selection and retention of the employees (Baron and Hannan 9). SPEC researchers asked owners whether they had a particular model in mind that “they sought to emulate (or avoid) in building their company” (Baron and Hannan 10). After analyzing the data from numerous interviews with the founders, researchers found that the SPEC “founders’ notions about how work and employment should be organized varied along three main dimensions (Figure 2) – attachment, coordination, and selection – each characterized by three or four fairly distinct approaches from which organizational architects seemed to be selecting” (Baron and Hannan 10).

Figure 2. Dimensions of Employment Blueprints

Basis of Attachment & Retention	Compensation ("money") Qualities of the work ("work") Work group as community ("love")
Criterion for Selection	Skills Exceptional talent / potential Fit with the team or organization
Means of Control & Coordination	Direct monitoring Peer and/or cultural control Reliance on professional standards Formal Processes and procedures

Source: Baron, James N., and Michael T. Hannan "Organizational Blueprints for Success in High-Tech Start-Ups: LESSONS FROM THE STANFORD PROJECT ON EMERGING COMPANIES." *California Management Review* 44.3 (2002): 8-36. *Business Source Complete*. EBSCO. Web. 1 Nov. 2009, Figure 1.

Three approaches to the methods of attachment and selection, as well as four approaches to the means of control, yield to 36 possible combinations of employment

relations. SPEC researchers found that the data cluster in a few cells, which are referred to as the five basic blueprints of employment relations (Baron and Hannan 11). These five blueprints, also known as employment model, are described in Figure 3. Although about 30% of SPEC companies could be categorized, the majority of the enterprises were classified according to the adopted blueprint.

It is imperative to understand what these dimensions mean and how they fit in each of the five models. The employment model adopted by the founder becomes the basis for HRM practices are implemented in the organization.

Figure 3. Typology of Employment Blueprints, Based on Three Dimensions

Employment Blueprint	Dimensions		
	Attachment	Selection	Coordination/ Control
Star	Work	Potential	Professional
Engineering	Work	Skills	Peer / cultural
Commitment	Love	Fit	Peer / cultural
Bureaucracy	Work	Skills	Formal
Autocracy or Direct Control	Money	Skills	Direct Control

Source: Baron, James N., and Michael T. Hannan "Organizational Blueprints for Success in High-Tech Start-Ups: LESSONS FROM THE STANFORD PROJECT ON EMERGING COMPANIES." *California Management Review* 44.3 (2002): 8-36. *Business Source Complete*. EBSCO. Web. 1 Nov. 2009, Figure 2.

The basis of attachment dimension describes the founder's ideas about how employees would ideally feel about the company. The *Love* approach means that managers of these start-ups want their employees to really enjoy the place of work and remain with the company until retirement. The *Work* approach describes companies that captivate staff by challenging and interesting work. Meanwhile, some founder took the *Money* approach simply encouraging hard work with good pay.

As shown in Figure 3, three of the five blueprints emphasized the *Work* attachment principle. “Many SPEC firms pursue cutting-edge technology, and the primary motivator for their employees is the desire to work at the technological frontier” (Baron and Hannan 10). The attachment dimension also relates to founders’ approach to employee involvement in strategic planning. Managers of start-ups where a strong bond between the employees and the company is encouraged are more likely to implement practices that engage employees in the creation of the business strategy. On the other hand, companies that adopted the *Work* or *Money* approach are less likely to implement strategic HRM practices.

The second dimension of the employment blueprint addresses the basis for employee selection. Greiner suggested that at the birth stage of any enterprise staff is hired based on the skills required to perform product development tasks. In Figures 2 and 3 this approach is identified as *Skills*. Greiner’s theory is supported by three of the five employment models: Engineering, Bureaucracy, and Autocracy. As shown in Figure 3, employees of the Star companies were selected based on their potential contribution to the success of an organization in the long run. Finally, Commitment firms looked for employees that would become a good fit in the organization. The selection dimension defines the HRM practices of a start-up in the area of talent recruitment. Companies that recruit employees based on the required skills are more likely to create specific job descriptions and implement formal interview procedures such as work sample. Enterprises that hire staff based on their potential and organizational fit are likely to employ informal interview techniques.

It is fair to refer to Engineering, Bureaucracy and Autocracy blueprints as product-driven models. Start-ups that adopt one of these models focus their employees' efforts on rapid development of the tangible assets. Commitment and Star blueprints can be categorized as organization focused models. In addition to market development, the founders of these firms are also focused on finding the right talent and creating a strong organization.

The third dimension that defines the employment blueprint describes the means of work coordination and methods of control. As Greiner predicted majority of the start-ups rely on informal control in the organizational (Baron and Hannan 10). Greiner also suggested that a founder of an emerging enterprise is forced to implement a more formal method of control only when faced with the crisis of leadership. SPEC findings offer a slightly different approach. As seen in Figure 3, organizations with Engineering and Commitment blueprint indeed relied on peer control. Companies with the Bureaucracy model defined a strict set of policies and procedures. Star firms relied on professional standards, yet allowed for peer control. The specific HRM practices employed to manage human capital vary based on the approach taken along this dimension. SPEC study shows that emerging SME with informal means of coordination do not create many managerial and administrative positions. About 16% of work force in all of the Commitment, Star and Engineering companies carried out administrative and managerial tasks. On the other hand, managers made up nearly 31% of the total number of employees in the Bureaucracy start-ups.

SPEC findings indicate that start-ups are not all alike even in the early stages of their development. SPEC companies were founded in high-tech industry, located in a

small geographical region, and established in the same time period. Nonetheless, the employment models adopted by the founders are very diverse. Start-ups with different blueprints in mind employed different HRM practices. To understand how employment model selection affects HRM practices and ultimately firm's performance, it is important to first take a closer look at each employment blueprint separately.

The Engineering blueprint "provides employees with challenging work and uses peer mechanism of control" (Keating and Olivares 178). This model parallels standard descriptions of the high-tech start-up culture. Emerging companies with the Engineering blueprint closely follow Greiner's curve of the organizational evolution. It is also the most popular model among SPEC companies. Nearly 31% of the SPEC firms adopted the Engineering blueprint.

Star companies target a small market segment of high-end customers. These companies recruit only the top talent in the industry and attract their elite staff with high salaries. The employees are selected based on their potential. The founders of the Star companies rely on the autonomy and professional control without implementing formal HRM practices. This blueprint is characterized by dimension of attachment through challenging work (Baron and Hannan 11). Approximately 9% of the start-up founders interviewed by SPEC researchers chose the Star model for their enterprises.

Almost 14% of the SPEC companies adopted the Commitment model in their organization. When asked, founders of these start-ups indicated that they wanted to build "the kind of company where people would only leave when they retire" (Baron and Hannan 12). The founders strongly rely on the familial ties and employees' emotional attachment to an organization. Staff is selected based on the cultural fit rather than the

skill. Informal peer-group control method is exercised with no formal implementation of HRM practices.

Only the founders of the start-ups that adopted the Bureaucracy model drafted formal policies and enforced formal HRM practices. Job descriptions, project descriptions, and rigorous project management procedures can typically be found in the Bureaucracy start-ups (Baron and Hannan 12). This employment model “attracts employees based on work or opportunities for development and uses formalized control mechanisms” (Keating and Olivares 178). Less than 7% of the SPEC companies employed the Bureaucracy blueprint.

Finally, the simplest model of employment relationship introduced in the SPEC research is the Autocracy. The main principle behind this employment model is ‘work hard, get paid. Employees of the Autocracy start-ups have no emotional attachment to the organization. This model is characterized by the *Skills* approach to employee selection and direct supervision. Like the Bureaucracy blueprint, Autocracy was the least popular employment model. About 6.6% of the SPEC companies adopted this blueprint.

The Relationship between Employment Blueprint and HRM Practices.

As mentioned earlier, HRM practices in the start-up are linked to founder’s choice of the employment blueprint. SPEC research does not provide specific information about the relationship between the employment blueprint and the development of the start-ups’ competitive advantage. Nonetheless, certain blueprints require implementation of HRM practices that aid in strategic management of human capital.

After going through the phase of creative evolution all start-ups face the crisis of leadership. Rapid expansion of a start-up requires more personnel, as the population of an organization grows HRM issues become more apparent. Informal HRM practices such as peer control and informal interview style are no longer efficient; therefore HRM issues require founder's immediate attention. As stated earlier nearly half of the emerging SME fail in this period because many founders are reluctant to change their approach to HRM.

Greiner suggests that the rate of company's progression along the evolution curve varies with the size of the organization. SPEC research also suggests that organization-driven start-ups face the crisis of leadership much sooner than product based firms. Different blueprints "entail quite different notions of the urgency of gaining expertise in human resource management and of the key HR imperatives" (Baron and Hannan 14).

Due to the focus on a strong organizational culture the Star and the Commitment firms require HR expertise almost immediately. One of the most critical aspects in the Star model is the selection of elite talent, which is an urgent HRM issue (Baron and Hannan, 14). Commitment companies strongly rely on the familial ties between employees and the organization. These start-ups hire personnel based on the organizational fit. These founders focus not only on employee selection and recruitment, but also on implementation of HRM practices that can aid in employee retention and job satisfaction. HRM practices such as creation of an organizational chart, mission and values statements, and employment of a full-time personnel specialist can be found the Commitment start-ups soon after their birth.

On the other end of the spectrum, emerging SME that adopted the Engineering blueprint go through the creative evolution phase at a slower rate. As concluded earlier,

start-ups with the Engineering employment model closely follow Greiner's theory on organizational evolution. Greiner suggests that the "speed at which an organization experiences phases of evolution" is closely related to the growth rate of the industry. In general, unlike the organization-driven emerging enterprises, the Engineering start-ups do not face the crisis of leadership until the expansion of the firm is required by the growth of the market.

The Effect of Blueprint Selection on Business Growth and Failure Rate

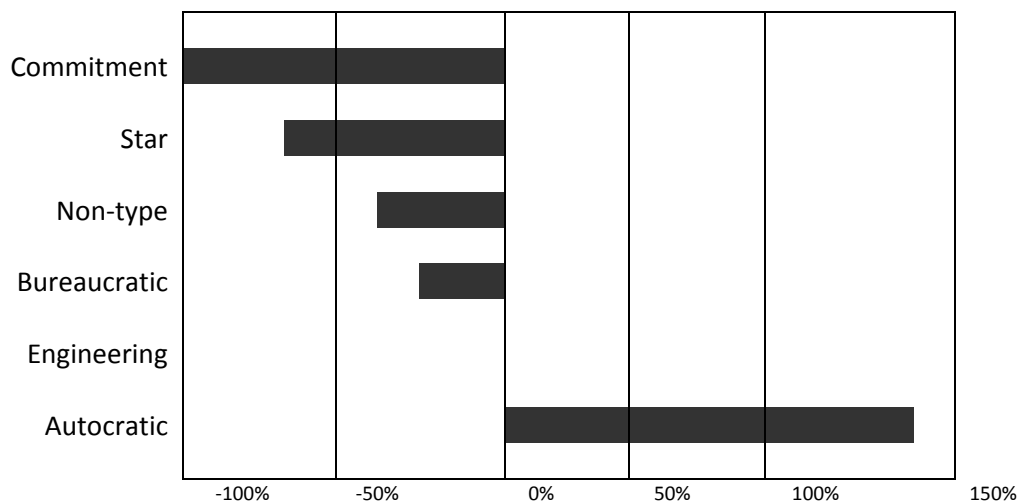
SPEC researchers suggest that the founder's initial choice of the employment blueprint has a direct effect on the growth rate of an organization. In this section I examine the data linking the employment blueprint to business performance. If organization-driven start-ups show better financial results, I can conclude that implementation of formal HRM strategies has a positive effect on the performance of an emerging enterprise.

Figure 4 shows the likelihood of failure of an organization based on founder's selection of the employment blueprint. Since it was established that the Engineering blueprint is a standard for high-tech start-ups, the data for this employment model was set to "0" as a reference point for the other four models. The data in Figure 4 indicate that both the Commitment and the Star entrepreneurships are the least likely to fail. This is an interesting fact considering that entrepreneurial research suggests that product-driven start-ups are more likely to succeed.

SPEC findings conclude that “companies that were created with the Commitment model in mind were the fastest to go public” (Baron and Hannan 24). Additional research shows that the Star companies experience the fastest business growth following the IPO. As mentioned previously, the founders of these companies are highly likely to engage the staff in the strategic planning process. Employees that have a clear vision of where their organization is headed have higher job satisfaction and performance.

On the other hand, companies that did not employ any strategic HRM practices, like Autocracy, were most likely to fold. Autocracy start-ups that survived had the “worst performance in the market after going public” (Baron and Hannan 24).

Figure 4. Percentage Differences in Likelihood of Failure by Founder's Employment Blueprint



*Engineering Blueprint set to 0 as reference point

Source: Baron, James N., and Michael T. Hannan "Organizational Blueprints for Success in High-Tech Start-Ups: LESSONS FROM THE STANFORD PROJECT ON EMERGING COMPANIES." *California Management Review* 44.3 (2002): 8-36. *Business Source Complete*. EBSCO. Web. 1 Nov. 2009, Figure 6.

It can be concluded that the implementation of the HRM practices has a significant effect on the survival rate of the business. Tocher and Rutherford suggest that “implementation of traditional HRM practices is beneficial” to all organizations and small companies tend to show better financial results if they make use of HRM tools (Tocher and Rutherford 457).

Furthermore, formal HRM practices that encourage development of organizational culture such as team problem-solving, strategic planning meetings and employee socialization have a noticeable effect on the performance of an emerging enterprise.

The Effects of Changing Founder’s Blueprint

Tocher and Rutherford suggest that the “inability to identify and manage HRM problems is a common cause of failure” of the emerging companies (456). The evidence presented in the previous section confirms Tocher’s claim. When start-ups face the crisis of leadership some founders choose to alter their original blueprint in order to address the increasing HRM issues. The change in the employment blueprint, like the initial choice of the employment model, can have a tremendous effect on the development of the business. It is not surprising that “the companies that were product-driven were especially likely to alter their initial employment model over time” (Baron and Hannan 17). Among the product focused firms only “35.5% retained their founder’s model and 19.4% changed on all three dimensions” (Baron and Hannan 35). In comparison, 52% of the organization-driven emerging SME stayed with the original employment model, and only 0.9 percent modified all three dimensions of the blueprint (Baron and Hannan 35).

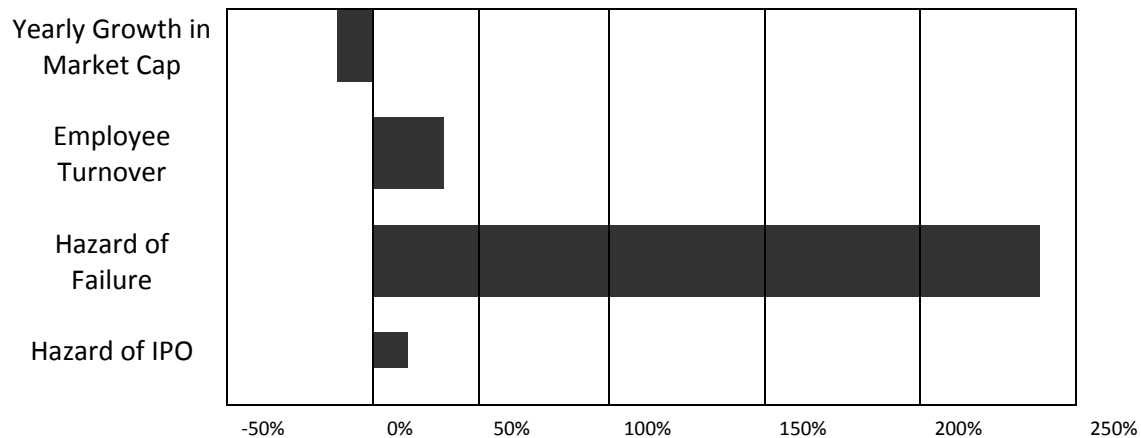
The consequences of changing the characteristics of the blueprint are further examined by the SPEC researchers. The data indicates that about 50% of the companies did not alter the blueprint at all (Baron and Hannan 16). It is worth noting that of the 84 companies that modified the employment model, 49 made a change only along one of the dimensions. Overall, the findings of Stanford Project indicate that revising the HRM model is “generally destabilizing to young technology start-ups, adversely affecting employee turnover, bottom-line performance, and even mere survival” (Baron and Hannan 19).

When companies do choose to change one or more attributes of the employment blueprint, it is not surprising that the dimension most likely to experience change is the means of coordination and control. Changing this dimension is a natural solution to the crisis of leadership. Over a third of the companies have modified this dimension of the blueprint, distancing themselves from the informal means of coordination and implementing formal methods of control.

Figure 5 summarizes the effects of modifying the original blueprint chosen by the founder.

Most important piece of information to be taken away by the founders of any emerging SME is that changes in the blueprint more than double the hazard of business failure. When examining Figure 5, it is also worth remembering that founders of product-driven start-ups are primarily concerned with changes in the market share. Typically, annual market share is not affected in the short term; therefore these founders may not recognize the effects of the changes in the blueprint.

Figure 5. Predicted Percentage Change in Organizational Outcomes Associated with a Change in the Founder's Blueprint



Source: Baron, James N., and Michael T. Hannan "Organizational Blueprints for Success in High-Tech Start-Ups: LESSONS FROM THE STANFORD PROJECT ON EMERGING COMPANIES." *California Management Review* 44.3 (2002): 8-36. *Business Source Complete*. EBSCO. Web. 1 Nov. 2009, Figure 9.

The founders of the Commitment start-ups for example are more sensitive to HRM issues such as turnover rate, thus are more likely to perceive changes in the blueprint as a source of business decline.

It has already been established that “it is people who sustain new firms, create new industries and new markets, and shape the overall impact of innovations,” therefore loss of talent has a direct impact on the financial bottom line of the organization (Keating and Olivares 174). Since labor turnover is likely to increase by nearly 25% if founder’s blueprint is altered, the relationship between the change in the employment model and the turnover rate must be established.

SPEC analysis indicates that majority of the companies that experienced changes in the blueprint also went through changes in the upper management. Baron and Hannan note that start-ups, where the blueprint was altered by the original founder, sustained

higher turnover rate and a noticeable decline in productivity. The employees that have been with the company the longest are affected by the change the most. This can be attributed to the strong bond established between the founder and the original staff. It is not surprising, that labor turnover is much higher among the Commitment and the Star start-ups. “Trust ensures that all the parties involved in an exchange relationship will behave in a predictable manner and will not renege on their deliverables,” thus the employees of the organization-driven enterprises are more likely to feel betrayed by the founder and leave the firm (Bhagavatula 54). The start-ups with the Engineering employment model, on the other hand, experience lower turnover rate.

Modification of the employment blueprint results in changes of the HRM practices typical of that employment model. Some of these changes can be positive. For example, peer mechanism of control may work well in small emerging enterprises, but as an organizations experience growth formal methods of control should be implemented. Although skill based employee selection practice may have originally worked well, most companies eventually require the development of a formal employee selection and recruitment policy. Existing employees can be managed and rewarded in ways that would encourage the development of an organizational culture.

In some cases however changes in the blueprint and HRM practices may not be as beneficial. For instance, talented professionals such as employees of the Star companies that have been allowed to manage themselves may not respond well to the implementation of formal means of control.

Lessons from the study of Irish High-Tech Start-Ups

An important supplement to SPEC research is a similar study conducted in the Republic of Ireland, which was applied to the Irish high-tech start-ups (“IHTSU”). Keating and Olivares confirmed that “people-related issues are crucial to understanding the organization of entrepreneurial firms” independently of the environment (181).

The researchers in Ireland selected a sample of IHTSUs and replicated the SPEC study. The average IHTSU company was much smaller than a typical SPEC start-up employing approximately 35 people (Keating and Olivares 181). The study concluded that IHTSU founders built their enterprises with the same employment blueprints in mind as their U.S. counterparts.

Some distinct differences between the IHTSUs and SPEC start-ups must be mentioned. As previously noted only organization-driven SPEC firms implemented formal HRM practices such as mission statements. These companies make up about 23% of all studied organizations. “Interestingly, 64% of the (IHTSU) companies were found to have a mission and value statements. This coupled with the significant attention paid to communication practices suggests that Irish high-tech companies make explicit efforts to communicate the organization strategy and culture to their employees” (Keating and Olivares 182). The data suggests that in Ireland, a more formal system of coordination is exercised by the emerging companies regardless of the founder’s selection of the blueprint. It is worth noting that the study in Ireland has taken place more recently and email has become a preferred way of communication. This technological development instantaneously formalized majority of the company communication in the organization.

In general, IHTSUs showed a greater rate of HRM practices in place. The level of founder's involvement was much higher in the HRM practices throughout the sample regardless of the employment blueprint. Majority of the IHTSUs had highly formalized HRM processes and procedures. "Over 91% of the companies have had written job descriptions," in comparison, only 12% of the SPEC start-ups created formal job descriptions (Keating / Olivares 182). About 75% of the Irish emerging enterprises created organizational charts and produced personnel manuals; the study shows that less than 25% of the SPEC companies had drafted either. It is also important to note, that while only 22% of the U.S. start-ups offered in-house training, while over 80% of the Irish emerging companies invested in training showing their commitment to help their staff "acquire the necessary skills to work within the organization" (Keating and Olivares 182).

It can be concluded that Irish start-ups do not behave in an informal ad hoc way as Greiner's theory suggests. IHTSUs tend to go public much sooner than similar start-ups in the SPEC study. While IHTSU study provides more quantitative evidence that development implementation of formal HRM practices has a positive impact on the performance of the organization, research does not discuss which particular HRM practices have a greater effect on the financial bottom line.

In Conclusion

In the engineering industry start-ups compete with large and established corporations, human capital is the competitive edge of any emerging enterprise. Although entrepreneurial research emphasizes the importance of product and market development,

research conducted on HRM in entrepreneurship indicates that management of human capital is one of the most critical tasks in a start-up.

As part of the research on HRM in start-ups, I have established that a typical start-up in a high-tech industry conforms to Greiner's theory evolution of an emerging enterprise. I have examined the data of the Stanford Project on Emerging Companies and was able to conclude that all high-tech start-ups go through the phase of growth through creativity and eventually face the crisis of leadership described by Larry E. Greiner.

The SPEC researchers introduced a way to classify high-tech start-up companies according to the way founders approached employee selection process, their attachment to an organization, and the means of control in the company.

Several lessons can be learned from the findings of SPEC study.

The most popular employment model among high-tech start-ups is the Engineering blueprint. These high-tech start-ups rely on the informal methods of control and do not implement any formal strategies to select and recruit employees. As these start-ups expand they are eventually forced to formalize some of the HRM practices.

Collectively SPEC and IHTSU researchers agree that founder's initial selection of the employment blueprint has an enduring effect on the development of a start-up. "The initial choices made by entrepreneurs become imprinted indelibly on their nascent organization, determining the developmental path the enterprise is likely to experience down the road" (Keating and Olivares 179).

The only factor that was found to have influence on what blueprint was adopted by the new enterprise was "founder's intended business strategy" (Baron and Hannan 14). The founders that adopted blueprints such as Commitment and Star built strong

organizations that are the least likely to fail, are highly likely to go public and experience fast growth post IPO. This evidence shows that organization-driven start-ups experience steady growth and long business life span. Formal HRM practices that aid in development of an organizational culture have a positive effect on the financial performance of a start-up. Commitment model “reflects a synergy between long-term relationship building with customers and with employees,” thus attracting customers looking to establish a relationship with their vendor (Baron and Hannan 14).

The start-ups with the Star model in mind target a small market, but they capture their customers by providing services performed by the best talent in the industry.

It is fair to say that the Engineering blueprint is the safe choice for entrepreneurs. Although the founders of these enterprises will most likely have to modify the blueprint when they face the crisis of leadership, this model has proven to be successful. Adopting a blueprint for an organization-driven company is always a good choice for the entrepreneurs. These start-ups have a high rate of survival and show steady growth. In general, the founders of the Star and Commitment enterprises do not need to modify the employment blueprint, and therefore do experience the same hazard of failure as product-driven start-ups.

Additional research is required to help identify which particular HRM practices have greater impact on the growth rate of a start-up. Regardless of which employment blueprint is adopted by the founder, formal implementation of HRM practices such as training, mission statement, and organizational chart increases productivity and improves financial performance of an organization.

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Vita

Maryna Tov was born in Donetsk, Ukraine. After attending Shawnee Mission South high school in Overland Park, KS. After graduation, she entered the University of Kansas at Lawrence. She obtained a Bachelors of Science in Architectural Engineering in December of 2005.

Maryna Tov worked at Butler Manufacturing from 2005 to 2008. During that time, she started work on her Masters degree in Executive Engineering Management at the University of Texas at Austin. From October 2008 to June of 2009, Maryna Tov was employed by AHG Structural Engineering, PC in Chicago IL. After leaving the start-up company AHGSE. PC, she has returned to the Pre-Engineered Metal Buildings sector with HCI Steel Buildings Systems.

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